

4 a pressure plate disposed on said layer of material for dispersing a com-
5 pressive force in a generally uniform manner across said layer of material;

6 a cover having a top and first and second sides, said top shaped so as to
7 generate said compressive force when said cover is engaged with said microplate,
8 said first and second sides each including an inward projection for supporting a
9 bottom edge of said microplate ;

10 a plurality of vertical tabs extending downward from said projections; and
11 a plurality of recesses in said cover assembly that register with said tabs,
12 whereby a plurality of the cover assemblies can be stacked with the vertical tabs
13 of each cover assembly extending down into the recesses of a cover assembly
14 that is disposed beneath.

1 2. (Twice Amended) The cover assembly as in claim 1 wherein said top and said pres-
2 sure plate each include one or more horizontal tabs extending generally parallel to said
3 top and said sides horizontal tabs enabling said cover to be engaged with or disengaged
4 from said microplate by a robotic system.

1 3. (Amended) The cover assembly as in claim 1 wherein said first and second sides of
2 said cover include apertures which render at least portions of the side surfaces of said mi-
3 croplate visible when said cover is engaged with said microplate.

1 4. (Amended) The cover assembly of claim 1 wherein said cover top includes a
2 central, longitudinally extending portion contacting said pressure plate and lateral por-
3 tions extending upwardly from said central portion at their inner edges, said sides ex-
4 tending downwardly from the outer edges of said lateral portions, whereby the lateral
5 portions and the central portion provide a resilient force that bears downward on said
6 pressure plate and upward on the bottom edges of said microplate.

5 ⁶ 12. (Amended) The assembly of claim 1 including longitudinal tabs, extending from said
2 first and second sides, whereby said cover may be disengaged from or engaged with said
3 microplate by displacing said longitudinal tabs laterally outwardly or inwardly to move
4 said projections away from or beneath said bottom edges of said microplate.

1 ⁶ 13. (Amended) A cover assembly for a microplate, said assembly comprising:
2 a layer of material shaped and dimensioned to removably seal a plurality
3 of a microplate's well openings;
4 a pressure plate disposed on said layer of material for dispersing a com-
5 pressive force in a generally uniform manner across said layer of material; and
6 a cover having a top and first and second sides, said top including a cen-
7 tral, longitudinally extending portion in contact with said pressure plate and lat-
8 eral portions extending upwardly from central portion at their inner edges, said
9 sides extending downwardly from the outer edges of said planar portions and in-
10 cluding projections that extend beneath bottom edges of said microplate;
11 whereby said lateral portions and said central portion provide a resilient
12 force that bears downward on said pressure plate and upward on the bottom edges
13 of said microplate.

1 ⁶ 14. (Amended) The assembly of claim 13 including longitudinal tabs, extending tabs
2 from said first and second sides, whereby said cover may be disengaged from or engaged
3 with said microplate by displacing said longitudinal tabs laterally outwardly or inwardly
4 to move said projections away from or beneath said bottom edges of said microplate.

1 ⁸ 15. (Amended) A cover assembly for a microplate, said assembly comprising:
2 a layer of compressible material shaped and dimensioned to removably seal a
3 plurality of a microplate's well openings;
4 a pressure plate disposed on said layer of material for dispersing a compres-
5 sive force in a generally uniform manner across said layer; and